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APR 18 2002

OIPE

TECH CENTER 1600/2900

RAW SEQUENCE LISTING

DATE: 04/08/2002

PATENT APPLICATION: US/10/021,577A

TIME: 10:45:48

Input Set : A:\00-87 SEQ.txt

Output Set: N:\CRF3\04082002\J021577A.raw

ENTERED

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4 <110> APPLICANT: Sheppard, Paul O.
5     Bishop, Paul D.
7 <120> TITLE OF INVENTION: Seleno-cysteine Containing Protein
8     Zsnk13
10 <130> FILE REFERENCE: 00-87
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/021,577A
C--> 12 <141> CURRENT FILING DATE: 2002-03-25
12 <150> PRIOR APPLICATION NUMBER: 60/256,676
13 <151> PRIOR FILING DATE: 2000-12-18
15 <160> NUMBER OF SEQ ID NOS: 6
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1355
21 <212> TYPE: DNA
22 <213> ORGANISM: Agkistrodon piscivorus piscivorus
24 <400> SEQUENCE: 1
25 ggatccaggc tgaattcggc acgaggtctg atggagacgc cgctgctttg gctgccgctg 60
26 ctgctgctgg ggtctctctc ggccttggcg ccgctgcgcg ccgtgcagct cgaccggagc 120
27 cgctgcaggt ggctggcccg cgggaagggt gagagctgtg gaggatgacg cttgaaccgc 180
28 ctgccagagg taaaggcctt tctcaacgaa gacctgcctt tgtaccacaa catggacttg 240
29 aagtacctgg ctggagcgga ccctgagctc atcctgctca acattcaatt tgaagaactt 300
30 cagagaatcc cattgagtga catgagccgg gaagagataa accagctgat gcaagaattg 360
31 ggattctacc ggaaagacac gccggaactc cctgttcccg atgcttttca aatggcgcc 420
32 gctaattcac tgccatcaga tgtggaagca atgaagaaca gacgtgcgaa agagaaaaag 480
33 ggggcggggg gtccagacct atagaattca acgtgctctg cttgtgaagg gtgcctgtta 540
34 gaaagaatgg gaagtctcag ggcattggca atatctaaat aatctgcaac catatagata 600
35 agatctcctg tggttcacac acggctgaat tgtgtgccc gagaaattaa catttagaga 660
36 agattcaaag gctgcaaaact tttgcttaag gagaagaact tgttgccctc agaagcaaaa 720
37 tgtgcaaaac aaagacagcc acatatatgc aaccccgggc cagttacaga cagcccttga 780
38 cttacgacta caatcgagac tggaaaaaac gttgttaagc atgtgcagtt gtcaagcaag 840
39 acaccacat ggctgtgatt gtgactttcc ccgctgctt cgcacttgc tttgtgcttg 900
40 tcggaagccg gttgggaaag gttgcaaatg gcgactgtgt gacttgcaga acaccgactg 960
41 tggatgaagg caagccaaca accaacaatc acaacagccc ttgtcaaatg gtcgtaagt 1020
42 aagggtgccc tgtaactcgg acgaaattga ctggaagaag cctcaaggga ttccgccctt 1080
43 catcccaaga ccggtacctt gcacaaggca ccacacaagg gtccactccc gtgaccagca 1140
44 ctttccctcc aggtgtgcct cactgtgca ggacaggatg aagccctctg cagaaagctt 1200
45 ttgtgctga ggggtgatag acacgtcctc tcgggctggg agcgcagcct gctggggagc 1260
46 aggtcgccaa accccaactg gtttaggata gtaacaataa agttgccttc gtcaaccacc 1320
47 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1355
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 110
51 <212> TYPE: PRT
52 <213> ORGANISM: Agkistrodon piscivorus piscivorus

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54 <220> FEATURE:

55 <221> NAME/KEY: VARIANT

56 <222> LOCATION: (46)...(46)

57 <223> OTHER INFORMATION: Xaa is selenocysteine.

59 <400> SEQUENCE: 2

60 Met Glu Thr Pro Leu Leu Trp Leu Pro Leu Leu Leu Gly Leu Leu

61 1 5 10 15

62 Ser Ala Leu Ala Pro Leu Arg Ala Val Gln Leu Asp Arg Ser Arg Leu

63 20 25 30

64 Gln Trp Leu Ala Arg Gly Lys Val Glu Ser Cys Gly Gly Xaa Arg Leu

65 35 40 45

66 Asn Arg Leu Pro Glu Val Lys Ala Phe Leu Asn Glu Asp Leu Pro Leu

67 50 55 60

68 Tyr His Asn Met Asp Leu Lys Tyr Leu Ala Gly Ala Asp Pro Glu Leu

69 65 70 75 80

70 Ile Leu Leu Asn Ile Gln Phe Glu Glu Leu Gln Arg Ile Pro Leu Ser

71 85 90 95

72 Asp Met Ser Arg Glu Glu Ile Asn Gln Leu Met Gln Glu Leu

73 100 105 110

76 <210> SEQ ID NO: 3

77 <211> LENGTH: 471

78 <212> TYPE: DNA

79 <213> ORGANISM: Artificial Sequence

81 <220> FEATURE:

82 <223> OTHER INFORMATION: This degenerate nucleotide sequence encodes the

83 amino acid sequence of SEQ ID NO:2.

85 <221> NAME/KEY: variation

86 <222> LOCATION: (1)...(471)

87 <223> OTHER INFORMATION: N is A, G, C, or T.

89 <400> SEQUENCE: 3

W--> 90 atggaracnc cnytnytnng gytnccnytn ytnytnytnng gnytnytnws ngcnytnngcn 60

W--> 91 ccnytnmgng cngtnrcaryt ngaymgwnsn mgnytnrcart ggytnngcnmg nggnaargtn 120

W--> 92 garwsntgyg gngggnnnmg nytnaaymgn ytnccngarg tnaargcntt yytnaaygar 180

W--> 93 gayytncny tntaycayaa yatggayytn aartayytnng cnggngcnga yccngarytn 240

W--> 94 athytnytna ayathcartt ygargarytn carmgathc cnytnwsnga yatgwsnmgn 300

W--> 95 gargaratha aycarytnat gcargarytn ggnttytaym gnaargayac nccngaywsn 360

W--> 96 ccngtnccng aygcnttyca ratggcnccn gcnaaywsny tnccnwsnga ygtngargcn 420

W--> 97 atgaaraaym gnmngcnaa rgaraaraar ggngcnggng gncngayyt n 471

99 <210> SEQ ID NO: 4

100 <211> LENGTH: 48

101 <212> TYPE: DNA

102 <213> ORGANISM: Artificial Sequence

104 <220> FEATURE:

105 <223> OTHER INFORMATION: Selenocysteine insertion motif.

107 <221> NAME/KEY: variation

108 <222> LOCATION: (5)...(14)

109 <223> OTHER INFORMATION: N is A, T, G, or C.

111 <221> NAME/KEY: variation

112 <222> LOCATION: (15)...(16)

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113 <223> OTHER INFORMATION: N is A, T, G, C, or absent.

115 <221> NAME/KEY: variation

116 <222> LOCATION: (19)...(34)

117 <223> OTHER INFORMATION: N is A, T, G, or C.

119 <221> NAME/KEY: variation

120 <222> LOCATION: (35)...(44)

121 <223> OTHER INFORMATION: N is A, T, G, C, or absent.

123 <221> NAME/KEY: variation

124 <222> LOCATION: (45)...(45)

125 <223> OTHER INFORMATION: N is A, T, G, or C.

127 <221> NAME/KEY: variation

128 <222> LOCATION: (48)...(48)

129 <223> OTHER INFORMATION: N is A, T, G, or C.

131 <400> SEQUENCE: 4

wq 132 augannnnnn nnnnnnaahn nnnnnnnnnn nnnnnnnnnn nnnnnngan

48

134 <210> SEQ ID NO: 5

135 <211> LENGTH: 40

136 <212> TYPE: DNA

137 <213> ORGANISM: Artificial Sequence

139 <220> FEATURE:

140 <223> OTHER INFORMATION: Selenocysteine insertion element.

142 <400> SEQUENCE: 5

143 atgaagccct ctgcagaaag cttttgctgc tgagggtgga

40

145 <210> SEQ ID NO: 6

146 <211> LENGTH: 44

147 <212> TYPE: DNA

148 <213> ORGANISM: Artificial Sequence

150 <220> FEATURE:

151 <223> OTHER INFORMATION: Selenocysteine insertion element.

153 <400> SEQUENCE: 6

154 atgaagccct ctgcagaaag cttttgctgc tgagggtgga taga

44

VERIFICATION SUMMARY

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No
 L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
 L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4